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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,898	04/14/2004	Toshio Nakakuki	81784.0306	5673
26021 7590 11/28/2007 HOGAN & HARTSON L.L.P. 1999 AVENUE OF THE STARS SUITE 1400 LOS ANGELES, CA 90067			EXAMINER RICE, ELISA M	
			ART UNIT 2624	PAPER NUMBER
			MAIL DATE 11/28/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/823,898	NAKAKUKI, TOSHIO	
	Examiner	Art Unit	
	Elisa M. Rice	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-7 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This office action is responsive to applicant's remarks received on July 30, 2007.

Claims 1, 2, 5, 6, 7, and 10 are currently pending.

As per corrections by Applicant, the objections to the title of the specification, claims 1, 5, 6, 7, and 10 and the 35 USC 101 rejection of claim 11 have been withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 2, and 5 are rejected under 35 U.S.C. 112, first paragraph, because claim 1 covers every conceivable structure for achieving the stated function and is therefore nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, and 5 are rejected under 112, second paragraph because it is unclear whether an apparatus or a method is being claimed. This is unclear because, while the preamble recites a "device", there is absolutely no recited structure. See MPEP 2114 for further clarification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5, 6, 7, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamura et al (US 6,040,860).

Regarding claim 1, Tamura discloses an image processing device for acquiring image data to be processed ("comprises an imaging element for outputting an image signal", column 2, line 62), extracting a spectrum of a predetermined physical quantity in said image data ("FIG. 4 is a sample luminance histogram showing the feature quantity extracted by the feature quantity extraction circuit 107", column 4, line 28), making a determination as to whether or not said spectrum has a plurality of peaks ("This luminance histogram (FIG. 4bcd) shows that there are two luminance peaks with one in the low luminance range and one in the high luminance range. This makes it possible to deduce that the captured image contains a backlit subject.", column 8, line 65), and performing a process based on a result of the determination, wherein the process is a backlighting correction process(The image evaluation means 108 then sets the compensation rate of the gradation compensation characteristic used to compensate the input image based on the luminance histogram extracted by the feature quantity extraction circuit 107, column 9, line 2), wherein the determination as to whether or not said spectrum has a plurality of peaks is made based on, with respect to said spectrum, an integral value of a range where said physical quantity is no greater than a first threshold, and an integral value of a range where said physical quantity is no smaller than a second threshold which is greater than said first threshold ("FIG. 4 is a sample luminance histogram showing the feature quantity extracted by the feature quantity extraction circuit 107 in the present embodiment of the invention. Curve a in FIG. 4 is the luminance histogram where the low luminance pixel count of pixels with a luminance value less than or equal to threshold value 1 is level b, the middle luminance pixel count

of pixels with a luminance value between threshold value 1 and threshold value 2 is level c, and the high luminance pixel count of pixels with a luminance value greater than or equal to threshold value 2 is level d.”, column 7, line 6; “This luminance histogram (FIG. 4bcd) shows that there are two luminance peaks with one in the low luminance range and one in the high luminance range. This makes it possible to deduce that the captured image contains a backlit subject.”, column 8, line 65), wherein at least one of said first and second thresholds is set based on an average level of said physical quantity (Fig. 4 and Fig. 5a; column 7, lines 6-16, Tamura is separating a histogram spectrum into three luminance regions and because the average luminance is related to the middle luminance region (Fig. 5a) because the apparatus is meant to evaluate the amount of backlighting in a typical image input signal (column 8, lines 56-58; Fig. 3)

Regarding claim 2, Tamura discloses the image processing device according to claim 1, wherein said physical quantity is a signal varied in accordance with a change in an amount of light or a luminance (“FIG. 4 is a sample luminance histogram showing the feature quantity extracted by the feature quantity extraction circuit 107”, column 4, line 28) .

Regarding claim 5, Tamura discloses the image processing device according to claim 3, wherein said first threshold is smaller than the average level of said physical quantity, and said second threshold is greater than the average level of said physical quantity (Fig. 4 and Fig. 5a; column 7, lines 6-16, Tamura is separating a histogram

spectrum into three luminance regions and because the average luminance is related to the middle luminance region (Fig. 5a) in order to evaluate the amount of backlighting in a typical image input signal (column 8, lines 56-58; Fig. 3), the first threshold is smaller than the average level of the luminance, and said second threshold is greater than the average level of the luminance.), and said spectrum is determined as having a plurality of peaks when satisfying at least two conditions out of: a first condition that an integral value of a range where said physical quantity is no greater than said first threshold is no smaller than a first percentage of an integral value of the entire range(column 7, line 9-11; column 7, line 17-20; Fig. 2, num. 107 and 108); a second condition that an integral value of a range where said physical quantity is no smaller than said second threshold is no smaller than a second percentage of the integral value of the entire range (column 7, lines 14-16; column 7, line 21-22; Fig. 2, num. 107 and 108)); and a third condition that a sum of the integral value of the range where said physical quantity is no greater than said first threshold and the integral value of the range where said physical quantity is no smaller than said second threshold is no smaller than a third percentage of the integral value of the entire range.

Regarding claim 6, Tamura discloses an image processing method for acquiring image data to be processed ("comprises an imaging element for outputting an image signal", column 2, line 62), extracting a spectrum of a predetermined physical quantity in said image data ("FIG. 4 is a sample luminance histogram showing the feature quantity

extracted by the feature quantity extraction circuit 107", column 4, line 28), making a determination as to whether or not said spectrum has a plurality of peaks ("This luminance histogram (FIG. 4bcd) shows that there are two luminance peaks with one in the low luminance range and one in the high luminance range. This makes it possible to deduce that the captured image contains a backlit subject.", column 8, line 65), and performing a process based on a result of the determination, wherein the process is a backlighting correction process(The image evaluation means 108 then sets the compensation rate of the gradation compensation characteristic used to compensate the input image based on the luminance histogram extracted by the feature quantity extraction circuit 107, column 9, line 2), wherein the determination as to whether or not said spectrum has a plurality of peaks is made based on, with respect to said spectrum, an integral value of a range where said physical quantity is no greater than a first threshold (, and an integral value of a range where said physical quantity is no smaller than a second threshold which is greater than said first threshold ("FIG. 4 is a sample luminance histogram showing the feature quantity extracted by the feature quantity extraction circuit 107 in the present embodiment of the invention. Curve a in FIG. 4 is the luminance histogram where the low luminance pixel count of pixels with a luminance value less than or equal to threshold value 1 is level b, the middle luminance pixel count of pixels with a luminance value between threshold value 1 and threshold value 2 is level c, and the high luminance pixel count of pixels with a luminance value greater than or equal to threshold value 2 is level d.", column 7, line 6; "This luminance histogram (FIG. 4bcd) shows that there are two luminance peaks with one in the low luminance

range and one in the high luminance range. This makes it possible to deduce that the captured image contains a backlit subject.”, column 8, line 65), wherein at least one of said first and second thresholds is set based on an average level of said physical quantity (Fig. 4 and Fig. 5a; column 7, lines 6-16, Tamura is separating a histogram spectrum into three luminance regions and because the average luminance is related to the middle luminance region (Fig. 5a) in order to evaluate the amount of backlighting in a typical image input signal (column 8, lines 56-58; Fig. 3), the first threshold is smaller than the average level of the luminance, and said second threshold is greater than the average level of the luminance.)

Regarding claim 7, Tamura discloses the image processing method according to claim 6, wherein said physical quantity is a signal varied in accordance with a change in an amount of light or a luminance (“FIG. 4 is a sample luminance histogram showing the feature quantity extracted by the feature quantity extraction circuit 107”, column 4, line 28).

Regarding claim 10, Tamura discloses the image processing method according to claim 7, wherein said first threshold is smaller than the average level of said physical quantity, and said second threshold is greater than the average level of said physical quantity (Fig. 4 and Fig. 5a; column 7, lines 6-16, Tamura is separating a histogram spectrum into three luminance regions and because the average luminance

is related to the middle luminance region (Fig. 5a) in order to evaluate the amount of backlighting in a typical image input signal (column 8, lines 56-58; Fig. 3), the first threshold is smaller than the average level of the luminance, and said second threshold is greater than the average level of the luminance.), and said spectrum is determined as having a plurality of peaks when satisfying at least two conditions out of: a first condition that an integral value of a range where said physical quantity is no greater than said first threshold is no smaller than a first percentage of an integral value of the entire range (column 7, line 9-11; column 7, line 17-20; Fig. 2, num. 107 and 108); a second condition that an integral value of a range where said physical quantity is no smaller than said second threshold is no smaller than a second percentage of the integral value of the entire range (column 7, lines 14-16; column 7, line 21-22; Fig. 2, num. 107 and 108); and a third condition that a sum of the integral value of the range where said physical quantity is no greater than said first threshold and the integral value of the range where said physical quantity is no smaller than said second threshold is no smaller than a third percentage of the integral value of the entire range.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elisa M. Rice whose telephone number is (571)270-1580. The examiner can normally be reached on 8:00a.m.-5:30p.m. EST Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian P. Werner can be reached on (571)272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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